Basic Energy Regulation in Michigan

This is an overview of energy regulation in Michigan with emphasis on public utility electric and natural gas service. This summary was prepared by the Michigan Electric & Gas Association for general information purposes.

A. Energy Industry Structure and Providers

Industry Overview: The electric utility industry in Michigan can be segmented into generation (G), transmission (T) and distribution (D). The G function involves production of electric energy at power plants. Michigan has a mix of G technologies, including coal, natural gas, nuclear, hydroelectric, wind and other types of plants. Coal (66%), nuclear (21%) and natural gas (8%) are the predominant fuel sources. The T function involves high voltage transmission of bulk power from generating plants to the distribution grid. It also includes movement of bulk power between utilities and states. The D segment involves the local distribution and delivery of electricity to end use customers, including the poles, wires, transformers, service drops and meters.

Michigan electric utilities operate in a broader multistate regional area in which electric power is generated and transmitted on a coordinated basis, under control of federally-regulated independent system operators (ISOs). Most of Michigan is in the region operated by the **Midwest Independent System Operator (MISO)** of Carmel, IN. The territory of one electric utility in SW Lower Michigan is in the ISO region controlled by **PJM Interconnection** of Norristown, PA. MISO coordinates transmission system operation in 11 Midwestern states and Canada, including Michigan. PJM performs the similar function in 13 states from the Mid-Atlantic region extending W to Illinois. The participation and operational area in MISO or PJM are subject to change.

The natural gas industry structure also includes a local distribution function by public utilities which receive natural gas from the interstate pipeline system at interconnection points and deliver that gas through their local systems to end use customers. Gas supply originates at producing fields in distant regions (Canada, Gulf Coast or Texas Panhandle) including some smaller fields in Northern Lower Michigan. Interstate pipelines transport the gas to utilities. Unlike electricity, which must be used as it is generated, natural gas can be stored for later use by injection into depleted wells and withdrawal in times of peak demand such as the winter heating season. Natural gas is the primary home heating fuel in Michigan and it is also used for industrial processes and as fuel for electric generating plants.

Another industry segment is **"merchant" electric generation**, in which non-utility companies operate G facilities to sell power in the ISO regional markets. There are also brokers and marketers providing either electricity or natural gas to end users in Michigan delivered through the local utility, sometimes referred to as **alternative energy suppliers**.

B. Michigan Energy Providers

Electric and gas public utility service in Michigan is provided by 13 investor-owned companies, 10 rural electric cooperatives and approximately 42 municipal electric utilities. Four of the investor owned utilities and one cooperative are "combination utilities" providing both electric and gas service.

Investor-Owned Utilities (IOUs): IOU Michigan rates and service are typically regulated by the Michigan Public Service Commission (MPSC). The largest IOUs and energy providers are Consumers Energy, providing both electric and gas service in a broad region, Detroit Edison, providing electric service in SE Michigan (Detroit area) and Michigan Consolidated Gas Company (MichCon), providing gas service in a broad region. Detroit Edison and MichCon are affiliated companies within DTE Energy. Other IOUs serving in Lower Michigan include electric providers Alpena Power and Indiana Michigan Power (I&M), and gas providers SEMCo Energy, Michigan Gas Utilities (MGU), Aurora Gas, Superior Energy and Citizens Gas. In the Upper Peninsula, IOUs include combination service providers Northern States Power – Wisconsin (Xcel Energy) and Wisconsin Public Service (WPS), electric providers We Energies and Upper Peninsula Power Company (UPPCo) and gas providers SEMCo and MichCon that serve both peninsulas. MGU, UPPCo and WPS are affiliated within Integrys Energy Group, which operates utilities in multiple states. We Energies, I&M and Xcel also serve multiple states. I&M, serving SW Lower Michigan and Northern Indiana, is part of the AEP System, which operates utilities in multiple states and a nuclear plant in Bridgman, Michigan.

Rural Electric Cooperatives (Co-ops): There are 10 electric distribution cooperatives serving rural areas of Michigan: Alger Delta, Bayfield, Cherryland, Cloverland, Great Lakes Energy, Midwest Energy, Presque Isle, Thumb Electric, Tri-County Electric and Ontonagon County. Presque Isle also provides natural gas service. Cooperatives are owned by their members and have the option under Michigan law to elect rate regulation by their members through the governing board, instead of the MPSC. There are also two generating and transmission (G&T) cooperatives, Wolverine and Wabash Valley, that provide electricity at wholesale for resale by distribution cooperatives.

Municipal Electric Utilities: There are approximately 42 municipal electric utilities in Michigan. The largest of these include Lansing Board of Water & Light (LBWL), Detroit Public Lighting Dept., Traverse City Light & Power, Holland Board of Public Works, Marquette Board of Light and Power, Bay City and Escanaba. Rates and service are regulated not by the MPSC but locally, by the municipality.

Natural Gas Pipelines: Natural gas supplies to the distribution utilities move on an interstate pipeline system connecting producing regions with utilities and markets. The major interstate pipelines in Michigan are ANR Pipeline (TransCanada), Great Lakes Gas Transmission, Vector Pipeline and Panhandle Energy (Panhandle and Trunkline Pipelines). Their rates are regulated at the federal level by the Federal Energy Regulatory Commission (FERC) due to the interstate service.

Electric Transmission: High-voltage electric transmission lines interconnecting local utilities with each other and the interstate electric grid are owned by utility companies or, for much of Michigan, by independent companies. The major electric transmission companies in Michigan are ATC LLC in the Upper Peninsula and ITC Transmission in the Lower Peninsula. The AEP System has a major transmission line in SW Lower Michigan. Wholesale electric transmission service and rates are regulated by the FERC.

Propane and Fuel Oil: Some homes and businesses in Michigan use propane or fuel oil for heating. The fuel is provided by independent distributors across the state. These companies are not subject to state or federal utility-type regulation.

Alternative Energy Service (AES) Providers: Under Michigan law, alternative electric suppliers can sell electricity to retail customers, delivered by the local utility system. A similar option exists by tariff for the largest gas utilities. These alternative providers are subject to state licensing but not traditional utility regulation of rates and service. The MPSC website lists 14 active AES providers including Constellation New Energy, MidAmerican Energy, Direct Energy and Premier.

C. Regulatory Agencies and Jurisdiction

Michigan Public Service Commission (MPSC): This is a 3-member commission that regulates the retail electric and gas utility rates and services in the state. The MPSC also has regulatory authority regarding state pipelines, motor carriers, telecommunications and T siting. Co-ops have an optional right to have members regulate their rates and some have exercised this option. Three small gas IOU providers have "home rule" rate regulation at the local level. The MPSC is the major utility regulatory agency in Michigan.

Federal Energy Regulatory Commission (FERC): The FERC is a 5-member federal agency that regulates the transmission and sale of natural gas and electricity in interstate commerce, hydroelectric plants, electric transmission reliability, interstate energy markets and other matters. The breakdown between state (MPSC) and federal (FERC) regulatory authority is based, generally, on whether the transaction is wholesale (sale for resale) or retail (sale to end user customers), with the state having authority over the retail sales and service. Wholesale transactions are viewed as interstate commerce off limits to state regulation under the U.S. Constitution's commerce clause.

Local Control and Home Rule: Municipal utility electric rates are determined by the local municipality rather than the MPSC. Small gas utilities Aurora, Citizens and Superior also have "home rule" gas service rate regulation at the local level. Other significant local regulation of public utilities includes the requirement for a local franchise to conduct business, and municipal control of public rights of way where some utility lines and facilities are located.

Michigan Department of Natural Resources (DNR): The MDNR administers state environmental laws and regulation. Although the DNR does not regulate utility rates and service directly, it has authority over matters such as air emissions and quality, water discharges and quality and wildlife that affect utility facilities such as power generating plants, and pipelines.

U.S. Environmental Protection Agency (EPA): This federal agency administers federal environmental laws, including the Clean Air Act and the National Environmental Policy Act. EPA regulation impacts the technology and location of electric generating plants. Major emissions control technology at power plants is designed to meet EPA requirements. The EPA is engaged in significant new rulemaking and regulatory activity relating to toxic emissions and carbon.

D. Recent State and Federal Energy Policy Legislation

Energy policy has been an active area of political debate at the federal and state levels in recent years. The history of energy policy has seen major legislation enacted in response to market conditions and specific problems. Price and service regulation initially developed out of concerns over the monopoly status of utilities. Recent trends have focused on introducing more competition, resource adequacy, environmental protection and climate change. There is no single comprehensive federal energy policy and the situation of overlapping jurisdictions and sometimes conflicting policies continues. This section reviews some of the most significant state and federal law changes in recent years.

Michigan Law

- **Clean, Renewable and Efficient Energy Act (2008 PA 295 or "Act 295):** This act established requirements for public renewable energy and energy efficiency programs across the state. It includes a 10% by 2015 electric renewable portfolio standard (RPS) requiring Michigan utilities to have that percentage of renewable energy in their output by the target year. The act also requires electric and gas utilities to implement energy optimization programs designed to save 1% of annual electricity sales volume per year and 0.75% of annual gas sales volume per year by 2015. This act also addressed energy efficiency in government buildings, determination of state wind energy resource zones and a statewide net metering program, among other things.

- **Amendments to Public Service Commission Act (2008 PA 286 or "Act 286"):** This act created new MPSC authority over utility mergers and asset transfers and advance certification (approval) of new electric generating facilities. It also requires that electric rates for customer classes (residential, commercial and industrial) be moved to reflect cost of service, a process called "de-skewing", to eliminate cross class subsidies. These amendments added a new "cap" on availability of electric retail choice, set at 10% of a utility's load. They also

added a provision for utilities to self implement requested rate changes before the MPSC after 6 months, subject to refund based on the final MPSC rate order.

- **Customer Choice and Electricity Reliability Act (2000 PA 141 or "Act 141"):** This was a major act sometimes characterized as electric "industry restructuring" requiring utilities to "unbundle" their price of service into separate elements of G, T and D and make their delivery systems available to non-utility AES providers who could sell directly to retail customers in the utility's service area. This process is called "customer choice" because the customer could elect a supplier other than the utility for the electric energy. Act 141 also encouraged the transfer of control over utility transmission facilities to independent operators and allowed certain utility costs to be "securitized" for recovery in the rates in anticipation of certain costs being unrecoverable in the anticipated competitive markets. Act 141 also contained measures to encourage interconnection of merchant plants, development of renewable energy and improvement to the interstate transmission capability.

- **Other Michigan Acts:** 1995 PA 30 establishes a MPSC certification process for electric transmission line projects. 1982 PA 304 sets the requirements for annual electric and gas rate adjustments to reflect changes in the costs of electric fuel and purchased power, and costs of natural gas supply. 1939 PA 3 is the basic statute governing the MPSC regulation of electric and gas, called the Public Service Commission Act and it includes via amendment some of the acts noted previously.

Federal Law

- **Current Situation:** The year 2010 ended without enactment of anticipated federal energy policy legislation including matters such as carbon "cap and trade" regulation and federal RPS renewable energy and energy efficiency targets. A major bill called the American Clean Energy and Security Act (ACES) passed the House but stalled over policy differences.

- **Energy Independence and Security Act of 2007 (EISA 2007):** This latest in a series of major federal acts addresses a broad range of energy issues. It includes the increased automobile fleet mileage standard of 35 mpg by 2020, increases the amount of required biofuel (ethanol) additives to gasoline, revises appliance and lighting efficiency standards (banning incandescent lights); encourages worker training and promotes alternative energy technologies and the development of "SmartGrid" enhancements to the electric system (2 way communications capability for monitoring and actions).

- **Energy Policy Act of 2005 (EPAct 2005):** This act extends the involvement of Congress across the spectrum of energy technologies, including, for example, loan guarantees for nuclear power redevelopment and clean coal carbon capture technology, increased biofuel additives to gasoline, designation of national

interest electric transmission corridors and FERC transmission certification in these areas, more subsidies for wind and alternate energy, required utility net metering, promotion of conservation and more.

- **Energy Policy Act of 1992 (EPAct92):** This act addressed variety of energy matters including nuclear waste disposal, energy efficiency and conservation, alternative energy and fuels and imported natural gas. This act promoted electric power deregulation and restructuring by encouraging development of unregulated independent electric power generators and encouraging FERC's subsequent activity of unbundling wholesale electric generation and transmission and opening the transmission grid to "equal access" by non utility generators.

- **Public Utility Regulatory Policies Act of 1978 (PURPA):** This act grew out of concerns over rising energy prices. It established requirements for utilities to buy electricity from certain "qualifying facilities" including small generators and cogenerating facilities that produced electricity and heat for industrial processes. This act also encouraged state commissions to promote conservation and establish the rules for implementation of the federal program.

- **Natural Gas Policy Act of 1978 (NGPA):** This act responded to critical natural gas supply shortages in the interstate market resulting from regulation of wellhead natural gas prices brought about by a Supreme Court ruling. The act established various categories of oil and gas and provided for phased deregulation and incentives for production.

E. Public Utility Concept and Cost of Service Regulation

The concept of a "public utility" developed over the years through common law, now reflected in regulatory statutes, includes these basic elements:

- Service to the Public
- Monopoly Power (natural monopoly – economies of scale)
- Fixed Territory (utility service areas)
- Technology Limits (e.g. natural gas system)
- Duty to Serve (must serve all who seek it)
- Just and Reasonable Prices (goal of regulation

Traditional "cost of service" ratemaking, used by the MPSC and other regulatory agencies, attempts to develop a just and reasonable price for utility service. Elements include the "revenue requirement" (R) or total revenue needed for the business; the "operating expenses" (O) representing the costs of running the business; the "rate base" (B) representing the investment in utility assets and the "rate of return" (r) representing the allowed earnings percentage. Typically, these elements are based on annual costs. The classic formula is $R=O+B(r)$.

Once a revenue requirement is established, the cost is allocated among utility customers in a process called "rate design". The allocation examines costs particular to various categories of customers. The rates are published in utility "tariffs".

F. Current Issues and Events in Utility Regulation

This is a sampling of current major issues at the federal and state levels. It is not intended as advocacy or a complete listing.

- **Energy Optimization and RPS:** Michigan will be evaluating the results from implementation of 2008 PA 295. Are the costs of these programs justified by the benefits?

- **Environmental:** The debate over climate policy continues at all levels. The cost-benefit analysis compares environmental benefits with added costs due to control measures or shift to cleaner technologies.

- **Technology:** Michigan has been considering the addition of base load coal generation to replace aging plants. New technologies such as smart grid are under review in pilot programs. The "fracking + directional drilling" technology improvements have increased natural gas domestic supply and promote price stability. This is a potential game changer in many areas.

- **The Role of Competition:** The national deregulatory tide receded after the Enron collapse and California shortages. Regional wholesale electric markets continue to develop although the anticipated widespread "customer choice" availability never materialized. In Michigan, choice developed for limited customers and is subject to the 10% cap.

- **Federal vs. State Control:** Independent interstate transmission, regional markets and periodic federal energy laws point to increasing the transfer of energy policy authority from state agencies and legislatures to Congress and the FERC.

- **The Role of Government:** Government sets policy in all areas affecting energy and utilities. The current activity includes active promotion and subsidies for "green" and "alternative" energy. This is a significant shift from the traditional oversight role regarding just and reasonable rates and preventing monopoly abuse.

F. Michigan Energy Industry Contacts

This is a non-exclusive list of energy industry contacts.

- **AEP System/Indiana Michigan Power:** Greg Clark (517) 367-1242
- **ATC LLC:** Brett French (906) 779-5925 or John Garvin (608) 877-3543
- **Associated Petroleum Industries of Michigan:** John Griffin (517) 372-7455
- **Consumers Energy Regulatory Affairs:** Cathy Wilson (517) 482-1525

- **DTE Energy Governmental Affairs:** Nancy Moody (517) 371-2350
- **Energy Michigan (energy marketers/developers):** Eric Schneidewind (517) 482-6937
- **Great Lakes Renewable Energy Association:** Jennifer Alvarado (517) 646-6269
- **ITC Transmission:** Francie Brown (517) 487-4844
- **Integrys Energy Group:** Dave Forsberg (517) 327-0465
- **Michigan Biomass Association:** Gary Melow (989) 763-0672
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- **Michigan Oil & Gas Association:** Frank Mortl (517) 487-1092
- **Michigan Petroleum Association:** Mark Griffin (517) 622-3530
- **Michigan Propane Gas Association:** Derek Dalling (517) 485-9408
- **Michigan Sustainable Energy Coalition:** Andy Such (517) 202-1786
- **Midwest Independent System Operator:** Bill Malcolm (317) 249-5426
- **Miss Dig System, Inc. (marking underground facilities):** Kathie Fournier (248) 370-6401
- **PJM Interconnection:** Richard Mathias (312)-961-6991
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